IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Akira Watanabe

Application No.: 10/716,622	Confirmation No.: 6336
Filed: November 20, 2003	Art Unit: 2164
For: PACKET SEARCH DEVICE, PACKET PROCESSING SEARCH METHOD USED FOR THE SAME, AND PROGRAM FOR THE SAME	Examiner: H. A. Hotelling

BRIEF IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully requests a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005, for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested.

Claims 1-17 pending in the application have been twice rejected, most recently in a Final Office Action mailed October 15, 2007. In particular, claims 1-17 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Pat. No. 6,754,662 to Li (Li). Applicants respectfully submit that rejection of these claims is improper for the reasons set forth in detail below.

Li Fails to Disclose Searching the Results of a Search

Applicant's invention is directed to a system for processing packets, and more particularly to a method of rapidly searching for information within packets so that they can be rapidly processed. More precisely, independent claim 1 recites, among other limitations, "a first search processing means for searching for search conditional statements" and "a second search processing means **for searching the search results of said first search processing means** with a second search method that is different from said first search method." (Emphasis added). As claimed, the second search processing means searches the results generated by the first search processing means, in a cascaded fashion. An exemplary embodiment of these cascaded searches is depicted in Fig. 3, which illustrates a binary search tree search, whose intermediate search results are tendered to a hash search means that generates the final search results.

Li does not disclose a second search means used to search the results of a first search. Instead, Li discloses an architecture that processes traffic packet flow by first checking a cache memory, and then separately checking regular memory. In particular, Li teaches a system that "first attempts to retrieve a classID for a defined [packet] flow corresponding to the incoming packet from cache 108 by calculating a hash key (block 304) and using it to look up a corresponding entry in cache 108 (block 306). If the classID cannot be found in cache 108 (determined in block 308), forwarding engine 102 performs a search on stored classification information in memory 110 (block 310)." Li, col. 4, ll. 24-30. See also Li, Figs. 1 and 3. In effect, Li teaches searching two places for the same thing, in particular, searching cache for a filter entry defining "the corresponding treatment/action that traffic should receive," and if the filter entry is not located in cache, searching for the filter entry in memory. Li, col. 3, ll. 60 – col. 4, ll. 39.

In other words, Li teaches creating a hashed classID of the received packet and searching cache memory 108 for it. If the ID is not found, then Li teaches searching regular memory 110 for it. Thus, the search of memory 110 does not use the results of the search for the ID in the cache 108.

The Advisory Action implies that the activity taught by Li in the last four lines of col. 3 constitutes the first search. In particular, what is taught is "Generally, flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, subnets, source and destination layer 4 ports ...." The Advisory Action argues that this activity – extracting information from packets, is a "search." Applicants strenuously disagree. A search is defined as an activity "to make a thorough examination of; look over carefully in order to find something." American Heritage College Dictionary, 1229-30 (3d. ed. 1993). Merely identifying information in a known location of a formatted packet header cannot comprise a "search," because there isn't "something" to be "found." There is no examination of, nor a comparison of, the data extracted in the activity taught by Li to "find" information. The location of the information in a packet header is well-known, one does not have to search for it.

In addition, only the separate searches of the cache and the memory examine the information extracted. Therefore, the information extraction activity described in Li is not a search. This explanation further answers the Examiner's question on page 2 of the Final Office Action of how "the search results from said first search processing means is not taught by the passage cited in the previous Office Action."

Assuming *arguendo* that the extraction activity is considered to be a search, claim 1 further requires that the first search processing means searches "for search conditional statements." In other words, the first search processing means determines whether certain information in the packet header satisfies certain conditions (*see, e.g.,* specification, page 11, lines 11-12). The cited portion of Li at the end of column 3 does not meet the recited limitation of claim 1. The Final Office Action does not show that the information extracted from packet headers satisfies conditional statements, as expressly recited in claim 1. The information extraction activity cited by the Advisory Action, therefore, cannot possibly meet the claim limitation because it lacks "searching for search conditional statements."

Therefore, none of the two searches that are disclosed in Li uses the results of the other search "for searching the search results from said first search processing means" as required by

3

independent claim 1. Independent claims 9 and 17 also recite similar, if not identical limitations to those recited in claim 1, and would allowable for the same reasons. Without disclosure of these claimed elements, Li cannot anticipate the claimed invention.

Dependent claims 2-8 and 10-16 depend from claims 1 and 9 respectively, and include all of the limitations found therein. These claims include further limitations, which in combination with the limitations of the claims from which they depend are neither disclosed nor suggested in the art of record, and are therefore allowable for the same reasons expressed above.

In view of the foregoing, Applicants respectfully submit that the pending claims are allowable over the cited references, and reconsideration and withdrawal of the rejections are respectfully requested and a Notice of Allowance issued. In the event a fee is required or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-2215.

Dated: December 7, 2007

Respectfully submitted,

By

Robert G. Gingher
  Registration No.: 45,735
DICKSTEIN SHAPIRO LLP
1177 Avenue of the Americas
New York, New York 10036-2714
(212) 277-6500
Attorney for Applicant

4